

What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. An antenna mount comprising:
  - a U-shaped support frame having a front portion, a back portion, and a bottom portion connected between the front and back portions, the bottom portion having a concave seat formed centrally on the interior surface of the U-shaped frame; and
  - a rotator element pivotably supported between the front portion and the back portion of the U-shaped frame, the rotator element including
    - a pendulum portion extending between the front and back portions,
    - a spring-biased piston provided at the bottom of the pendulum portion, wherein the piston is spring biased to be securely engaged in the seat when the pendulum portion is in parallel alignment with the front and back portions of the U-shaped frame, and
    - a connector for receiving and engaging an antenna.
2. The antenna mount according to claim 1, wherein the pendulum portion has a rounded contour at its bottom end.
3. The antenna mount according to claim 1, wherein the rotator element is shaped as an upside-down "L", and the connector is formed in a portion of the L-shaped rotator which overhangs the front portion of the frame.
4. The antenna according to claim 3, wherein the connector is a threaded bore formed through the overhang portion of the L-shaped rotator.

5. The antenna mount according to claim 3, wherein the front portion of the frame has a rounded profile at its upper end.

6. The antenna mount according to claim 1, wherein the rotator element further includes

a first bore formed centrally through the length thereof,

a second bore formed perpendicularly to and intersecting the first bore,

a coil spring located in the first bore having a length at rest at least equal to a portion of the length of the first bore, as measured from the bottom of the pendulum portion to the location along the first bore at which the second bore intersects the first bore,

a pin inserted into second bore to prevent the spring from moving upwards in the first bore, and

wherein the piston is secured to one end of the spring and protrudes from the bottom of the pendulum portion.

7. The antenna mount according to claim 6, wherein the spring has a spring constant such that the piston becomes disengaged from the seat when the rotator rotates in response to a predetermined force applied against the antenna.

8. The antenna mount according to claim 6, further comprising an end cap removably fixed in the top of the first bore.

9. The antenna mount according to claim 1, wherein the rotator element is rotatable either clockwise or counterclockwise .

10. The antenna mount according to claim 1, wherein the front portion and back portion of the U-shaped support frame are individual plates formed separately from the bottom portion, the front portion, back portion and bottom portion being secured together to form the U-shaped frame.

11. The antenna mount according to claim 1, wherein the antenna mount is suitable for use with military antennas and under military operating conditions.

12. An antenna mount comprising:  
a front plate;  
a back plate;  
a separator element having a concave seat formed thereon, the separator element being connected between the front plate and the back plate;  
a rotator element having a pendulum portion and an antenna mounting platform, the pendulum portion being pivotably mounted between the front plate and back plate and the antenna mounting portion overhanging over the front plate;  
a pivot shaft extending through the front plate, the pendulum portion of the rotator element and the back plate to thereby pivotably mount the rotator element; and  
a spring-biased piston provided at the bottom of the pendulum portion of the rotator element, such that when the pendulum portion is aligned with the front plate and the back plate, the piston is securely fixed in the concave seat via a force exerted by the spring-biased piston pushing against the seat.

13. The antenna mount according to claim 12, wherein the bottom of the pendulum portion on which the piston is provided has a rounded contour and wherein the rotator element is rotatable both clockwise and counterclockwise around the pivot shaft.

14. The antenna mount according to claim 12, wherein the rotator element is held in an upright position by the spring-biased piston engaged with the concave seat, and wherein a predetermined level of torque force applied to the rotator element causes the piston to disengage from the seat.

15. The antenna mount according to claim 14, wherein the rotator element can be restored to the upright position by rotating the rotator element until the piston automatically engages the seat once the rotator element reaches the upright position.

16. The antenna mount according to claim 12, wherein the rotator element further includes

- a spring bore formed through the length of the pendulum portion,

- a pin bore formed perpendicularly to and intersecting the spring bore,

- a coil spring having a length at rest at least equal to the length of a portion of the spring bore, as measured from the bottom of the pendulum portion to the location along the spring bore at which the pin bore intersects the spring bore, the spring being positioned in the spring bore, and

- a pin inserted into the pin bore to prevent the spring from moving upwards in the first bore,

- wherein the piston is secured to one end of the spring and protrudes from the bottom of the pendulum portion through the spring bore.

17. The antenna mount according to claim 16, further comprising an end cap removably fixed in the top of the spring bore.

18. The antenna mount according to claim 12, wherein the front plate has a rounded contour at an upper end thereof.

19. The antenna mount according to claim 12, wherein the back plate is configured to be attachable to a bracket for mounting on a military vehicle.

20. The antenna mount according to claim 12, wherein the antenna mounting portion of the rotator element includes a threaded throughhole for engagedly receiving an antenna.